

IN THE CLAIMS:

The following listing of claims replaces all prior versions, and listings, of claims in this application.

1-36 (Canceled)

37. (Currently amended) A computer system comprising:

a processor;

a storage facility coupled to the processor; and

program code, for execution by the processor, to implement:

a first plurality of interfaces to initiate reading of packet meta-data and packets of payload data from the storage facility, wherein the packet meta-data and packets of payload data are stored in the storage facility in a streaming media protocol-specific form;
and

a second plurality of interfaces to output streaming media packets to a requesting client system on a network, wherein the second plurality of interfaces collectively support a plurality of streaming media protocols, wherein the streaming media packets comprise the packet meta-data and the packets of payload data and are determined in response to a streaming media protocol requested by the client system, and wherein the first plurality of interfaces are streaming media protocol independent and the second plurality of interfaces are streaming media protocol dependent.

38. (Canceled)

39. (Previously presented) A computer system as recited in claim 56, wherein the packet meta-data and the packets of payload data are read from the storage facility at a pace independent of a requested pace for streaming the streaming media packets.

40. (Previously presented) A computer system as recited in claim 37, wherein the first plurality of interfaces are implemented in a first software layer of the computer system and the second plurality of interfaces are implemented in a second software layer of the computer system.

41. (Previously presented) A computer system as recited in claim 37, further comprising:

program code to implement a third plurality of interfaces configured to receive the packet meta-data, configured to adjust the packet meta-data to form adjusted packet meta-data, and to output the adjusted packet meta-data;

wherein the streaming media packets are also determined in response to the adjusted packet meta-data.

42. (Previously presented) A computer system as recited in claim 37, wherein the requested streaming media protocol is one of: Microsoft Media Streaming, Real Time Streaming Protocol, RealNetworks RealSystem.

43. (Previously presented) A computer system as recited in claim 37, wherein the second plurality of interfaces are configured to output a streaming media packet at a requested time.

44. (Previously presented) A computer system as recited in claim 37, wherein the second plurality of interfaces configured to output streaming media packets to the client system after packet meta-data and packets of payload data have been read from the storage facility.

45. (Previously presented) A computer system as recited in claim 37, wherein sizes of the streaming media packets depend upon the requested streaming media protocol.

46. (Currently amended) A streaming media cache comprising:

a storage facility to cache streaming media data received from a remote server;

a protocol independent subsystem to initiate reading of packet meta-data and

packets of payload data from the storage facility, wherein the packet meta-data and packets of payload data are stored in the storage facility in a streaming media protocol-specific form;
and

a protocol dependent subsystem to output streaming media packets to a client system on a network, wherein the protocol dependent subsystem supports a plurality of streaming media protocols, and wherein the streaming media packets comprise the packet meta-data and the packets of payload data and are determined in response to a streaming media protocol requested by the client system, and wherein the streaming media packets are read from the storage facility asynchronously with respect to outputting the streaming media packets to the client on the network.

47. (Previously presented) A streaming media cache as recited in claim 46, further comprising:

a plurality of interfaces to receive the packet meta-data, configured to adjust the packet meta-data to form adjusted packet meta-data, and to output the adjusted packet meta-data;

wherein the streaming media packets are also determined in response to the adjusted packet meta-data.

48. (Previously presented) A streaming media cache as recited in claim 46, wherein the requested streaming media protocol is one of: Microsoft Media Streaming, Real Time Streaming Protocol, RealNetworks RealSystem.

49. (Previously presented) A streaming media cache as recited in claim 46, wherein the protocol dependent subsystem is configured to output a streaming media packet at a requested time.

50. (Previously presented) A streaming media cache as recited in claim 46, wherein the protocol dependent subsystem is configured to output streaming media packets to the client system after packet meta-data and packets of payload data have been read from the storage facility.

51. (Previously presented) A streaming media cache as recited in claim 46, wherein sizes of the streaming media packets depend upon the requested streaming media protocol.

52. (Currently amended) A method of streaming media data from a streaming media cache, the method comprising:

receiving, at the streaming media cache, a first request for streaming media data from a first client system, the first request identifying streaming media data and a streaming media format supported by the first client system;

determining whether the streaming media data requested by the first client system is in storage at the streaming media cache;

if the streaming media data requested by the first client system is in storage at the streaming media cache, then retrieving the streaming media data from said storage using a streaming media protocol independent subsystem of the streaming media cache and then streaming the streaming media data from the streaming media cache to the first client system using a streaming media protocol dependent subsystem of the streaming media cache, in accordance with the streaming media format supported by the first client system,
wherein the streaming media data requested by the first client system is stored in the streaming media cache in a form that is specific to the streaming media format supported by the first client system;

receiving, at the streaming media cache, a second request for streaming media data from a second client system, the second request identifying streaming media data and a streaming media format supported by the second client system, wherein the streaming media format supported by the second client system is different from the streaming media format supported by the first client system; and

determining whether the streaming media data requested by the second client system is in storage at the streaming media cache; and

if the streaming media data requested by the second client system is in storage at the streaming media cache, then retrieving the streaming media data requested by the

second client system from said storage using the streaming media protocol independent subsystem of the streaming media cache and then streaming the streaming media data requested by the second client from the streaming media cache to the second client system using the streaming media protocol dependent subsystem of the streaming media cache, in accordance with the streaming media format supported by the second client system,
wherein the streaming media data requested by the second client system is stored in the streaming media cache in a form that is specific to the streaming media format supported by the second client system.

53. (Previously presented) A method as recited in claim 52, wherein streaming the streaming media data from the streaming media cache to the first client system comprises:

reading from a storage device one or more data objects that include payload packets comprising media data formatted in accordance with the streaming media format supported by the first client system.

54. (Previously presented) A method as recited in claim 53, wherein streaming the streaming media data from the streaming media cache to the first client system further comprises:

reading from a storage device one or more data objects that include meta-data associated with the payload packets.

55. (Previously presented) A method as recited in claim 52, further comprising:

if the streaming media data requested by the first client system is not in storage at the streaming media cache, then communicating a request for the streaming media data to a server storing the streaming media data requested by the first client system;

receiving, at the streaming media cache, the streaming media data requested by the first client from the server; and

storing, at the streaming media cache, the streaming media data requested by the first client.

56. (Previously presented) A computer system as recited in claim 37, wherein the streaming media packets are read from the storage facility asynchronously with respect to outputting the streaming media packets to the client on the network.

57. (Previously presented) A streaming media cache as recited in claim 46, wherein the packet meta-data and the packets of payload data are read from the storage facility at a pace independent of a requested pace for streaming the streaming media packets.

58. (Previously presented) A method as recited in claim 52, wherein said retrieving the streaming media data from said storage is done asynchronously with respect to said streaming the streaming media data to the first client system.

59. (Previously presented) A method as recited in claim 58, wherein the streaming media data are read from the storage facility at a pace independent of a requested pace for streaming the streaming media data to the client.

60. (Currently amended) A method of streaming media data from a streaming media cache, the method comprising:

receiving, at the streaming media cache, a request for streaming media data from a client system, the request identifying streaming media data and a streaming media format supported by the client system;

determining whether the streaming media data requested by the client system is in storage at the streaming media cache, wherein if the streaming media data requested by the client system is in storage at the streaming media cache, the streaming media data is stored in the streaming media cache in a form that is specific to a particular streaming media format; and

if the streaming media data requested by the client system is in storage at the streaming media cache, then retrieving the streaming media data from said storage using a streaming media protocol independent subsystem of the streaming media cache and then streaming the streaming media data from the streaming media cache to the client system using a streaming media protocol dependent subsystem of the streaming media cache in accordance with the streaming media format supported by the client system.

61. (Previously presented) A method as recited in claim 60, wherein streaming the streaming media data from the streaming media cache to the client system comprises:

reading from a storage device one or more data objects that include payload packets comprising media data formatted in accordance with the streaming media format supported by the client system.

62. (Previously presented) A method as recited in claim 61, wherein streaming the streaming media data from the streaming media cache to the client system further comprises:

reading from a storage device one or more data objects that include meta-data associated with the payload packets.

63. (Previously presented) A method as recited in claim 60, further comprising:

if the streaming media data requested by the client system is not in storage at the streaming media cache, then communicating a request for the streaming media data to a server storing the streaming media data requested by the client system;

receiving, at the streaming media cache, the streaming media data requested by the client from the server; and

storing, at the streaming media cache, the streaming media data requested by the client.

64. (New) A streaming media network cache comprising:

a storage facility to cache streaming media data received by the streaming media network cache from a remote server in a form that is specific to a first streaming media protocol;

a protocol independent caching subsystem to store the streaming media data in the storage facility in said form that is specific to the first streaming media protocol and to retrieve the streaming media data from the storage facility; and

a protocol dependent caching subsystem to output the streaming media data retrieved by the protocol independent caching subsystem from the storage facility to a client system over a network according to the first streaming media protocol.

65. (New) A streaming media network cache as recited in claim 64, wherein the streaming media network cache receives second streaming media data in a form that is specific to a second streaming media protocol, which is different from the first streaming media protocol, and wherein the protocol independent caching subsystem further is to store the second streaming media data in the storage facility in said form that is specific to the second streaming media protocol.

66. (New) A streaming media network cache as recited in claim 64, wherein said streaming media data comprises a streaming media stream, and wherein said form that is specific to the first streaming media protocol comprises a plurality of discrete objects, each of which contains a portion of said streaming media stream.

67. (New) A streaming media network cache as recited in claim 64, wherein the protocol dependent caching subsystem supports a plurality of streaming media protocols.

68. (New) A streaming media network cache as recited in claim 64, wherein the streaming media data is retrieved by the protocol independent caching subsystem from the storage facility asynchronously with respect to outputting the streaming media packets to the client over the network.

69. (New) A streaming media network cache as recited in claim 64, wherein the streaming media data is read from the storage facility at a pace independent of a requested pace for streaming the streaming media packets.

70. (New) A streaming media network cache as recited in claim 64, wherein the requested streaming media protocol is one of: Microsoft Media Streaming, Real Time Streaming Protocol, RealNetworks RealSystem.

71. (New) A streaming media network cache as recited in claim 64, wherein the protocol dependent caching subsystem is configured to output a streaming media packet at a requested time.

72. (New) A streaming media network cache as recited in claim 64, wherein the protocol dependent caching subsystem is configured to output streaming media packets to the client system after packet meta-data and packets of payload data have been read from the storage facility.

73. (New) A streaming media network cache as recited in claim 64, wherein sizes of the streaming media packets depend upon the requested streaming media protocol.